Transportation and Distribution Information Systems (TDIS)

AMS Automated MANIFEST System

Tony Brill

TDIS/AIT Team Lead

TDIS

TDIS supports those applications and hardware utilized by the Unit Move, Sustainment and FDP&P Communities. The following applications support the development of Unit Deployment Lists, Air and Ship Load plans, movement coordination, sustainment, distribution/receipt of supplies and In-Transit Visibility. W2W supports the Last Tactical Mile/ITV.

Unit Move

MAGTF II Deployment Support System II

Integrated Computerized Deployment System (ICODES) (JOINT)

Automated Air Load Planning System (AALPS) (JOINT)

Sustainment

Cargo Movement Operations System (CMOS) (JOINT)

Automated Manifest System-Tactical (AMS-TAC) (Multi Service)

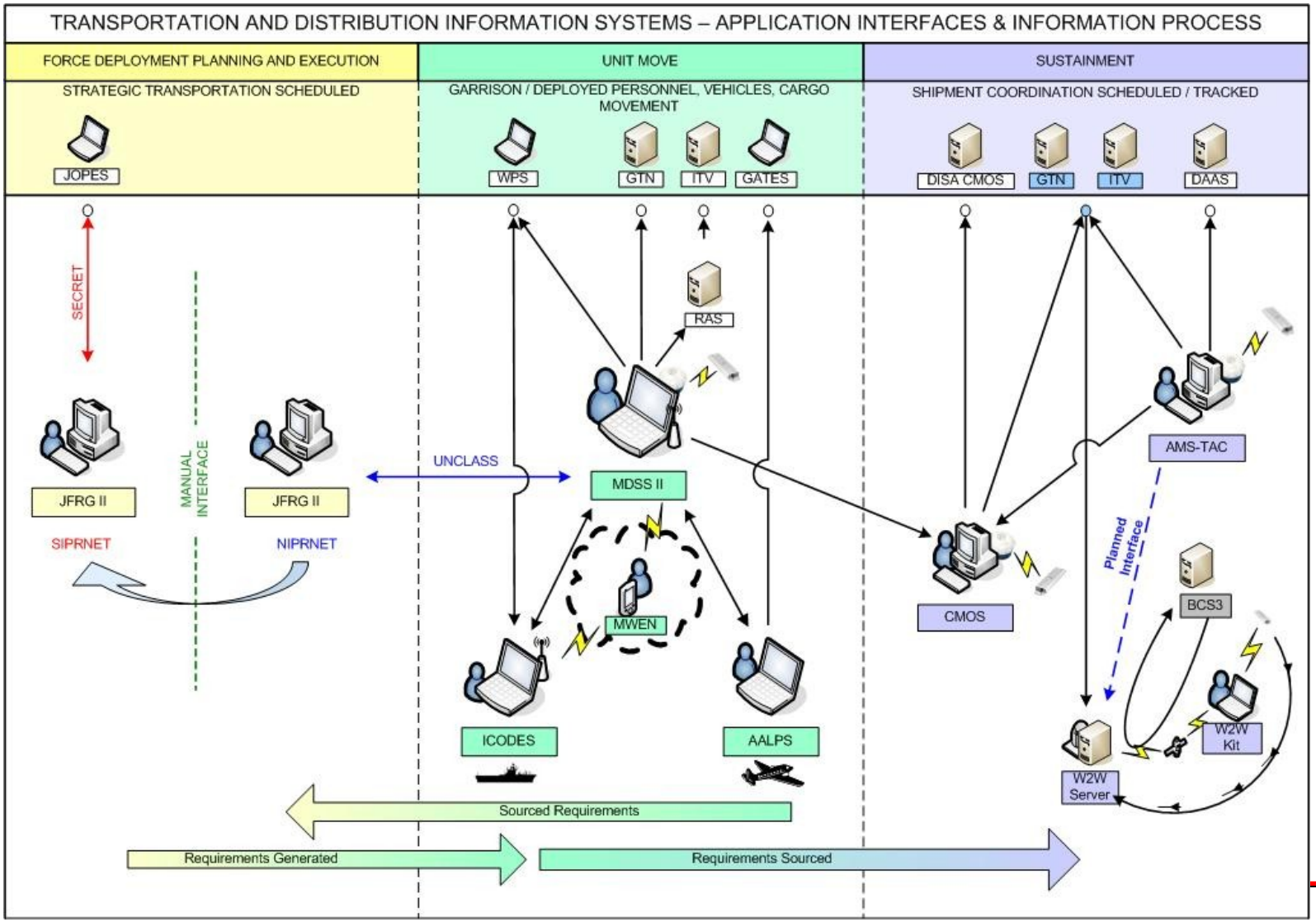
Warehouse-To-Warfighter (W2W) (Bridging technology)

FDP&E

Joint Force Requirements Generator II (JFRG II)

Agenda

- TDIS Update
- GCSS-MC
- Information Assurance
- Logistics
- Savi Sign Post
- DACMS
- MWEN
- AIT/RAS Server
- License Plate/Passive RFID


TRANSPORTATION AND DISTRIBUTION INFORMATION SYSTEMS – APPLICATION INTERFACES & INFORMATION PROCESS
FORCE DEPLOYMENT PLANNING AND EXECUTION
UNIT MOVE
SUSTAINMENT
STRATEGIC TRANSPORTATION SCHEDULED
GARRISON / DEPLOYED PERSONNEL, VEHICLES, CARGO MOVEMENT
SHIPMENT COORDINATION SCHEDULED / TRACKED
JOPES
WPS
GTN
ITV
GATES
DISA CMOS
GTN
ITV
DAAS
SECRET
RAS
AMS-TAC
UNCLASS
MDSS II
MANUAL INTERFACE
JFRG II
JFRG II
SIPRNET
NIPRNET
Planned Interface
CMOS
BCS3
MWEN
W2W Kit
ICODES
AALPS
W2W Server
Sourced Requirements
Requirements Generated
Requirements Sourced

Unit Move

MDSS II
ICODES
AALPS

May 2008

Unit Move – MDSS II

MAGTF Deployment Support System II (MDSS II)

A standalone system used by Marine Corps Operating Forces to support Force Deployment Planning and Execution (FDP&E). It is the database and interface hub for unit deployment. Through the use of extensive reference files, the system provides actual data to JFRG II to create an executable TPFDD. It reads/writes standard Military Shipping Labels (MSL), and active Radio Frequency Identification (RFID) tags. It collects and formats data for transmission to the ITV server and exchanges information with Marine Corps, other service and joint logistics, movement and distribution systems.

FY08 PLAN

- **Version 7.1**
  - Currently deployed and being supported by the TE&AT and developer for help desk support
- **Version 7.2**
  - Currently in the Certification phase.
  - Awaiting Information Assurance Accreditation and NMCI Certification
  - Fielding and New Equipment Training plans are currently under development. Training to be conducted late summer 2008 in conjunction with NMCI deployment (August-September-October 08)
  - Will be deployed via NMCI Radia Push and CD mailing (Late summer September-October 08)
  - Testing Savi Signpost technology to support detailed RFID Tracking during Arrival and Assembly Operations in real-world exercise (Cobra Gold and Freedom Banner 2008)
  - Supporting NORTHCOM Exercise Ardent Sentry to create GATES personnel and cargo manifests.
- **Version 7.2.1**
  - Currently in the development phase
  - Incorporating Navy functionality to assist in their migration from TC-AIMS II.
  - Incorporating DACMS automated weigh- and measure-in-motion capability for use by the operating forces. First deployment at Blount Island Command, Fall 2008
  - Developing an HTTPS interface with the National RFITV server. This will eliminate the need for the Remote Access Server (RAS) at Camp Lejeune.

POA&M

MDSS II 7.2

Date	Description	Action Team	Remarks	Task / Milestone
Current	Final IA approval Phase	NGMS	Tracking	Task
8 July 2008	ATO/ATC	Program Office	N/A	Milestone
9 July 2008	NMCI Certification Start	Program Office	Commence process	Task
Aug-Sept 2008	NETT	TE&AT	Final DATES TBD	Task
26 September 2008	NMCI Approval	Program Office	N/A	Milestone
October 2008	NMCI Deployment	Program Office	N/A	Milestone

POA&M

MDSS II 7.2.1

Date	Description	Action Team	Remarks	Task / Milestone
Current	Version 7.2.1 Development	Stanley Associates	Incorporate Navy requirements	Task
9 July 2008	Test Readiness Review	TDIS Project Officer	Stanley Associates & NGC to support	Milestone
21 July – 01 August 2008	GAT (Government Acceptance Test)	Program Office	Tentative site – Stanley Associates (Dumfries, VA)	Milestone
08 September 2008	Final build	Stanley Associates	N/A	Milestone
Sept-Dec 2008	IA/NMCI Certification	TDIS Project Office	N/A	Task

UNIT MOVE - ICODES

Integrated Computerized Deployment System (ICODES)

- Ship load planning software application that provides GUI (Graphical User Interface) display of ships, equipment, docks, and other designated areas.
- Utilizes artificial intelligence (AI) principles and techniques to assist embarkation specialists in the rapid development of cargo stow-plans.
- Integrates with current USMC AIT equipment to give shipboard embarkation specialists the ability to update the ship's as-loaded plan wirelessly and in near real-time utilizing the Mobile Wireless Embarkation Network (MWEN)
- Integrates with information management and documentation systems such as MDSS II, WPS, TCAIMS II, and IBS, to receive cargo lists and send completed load plans.
- System Managed by USTRANSCOM, SDDC, Ocean Systems Division

FY08 PLAN

- **Version 5.4**
  - Currently deployed and being supported by the TE&AT and the ICODES Hotline for helpdesk support

- **Version 5.4.3**
  - Entering NMCI Certification phase (May 08)
  - Fielding and New Equipment Training plans currently under development
  - Will be deployed via NMCI Radia Push and CD mailing (Fall 2008)
  - Testing wireless automated load planning capability with the MWEN system to support MPF backload operations in a real-world exercise (Cobra Gold and Freedom Banner 2008)

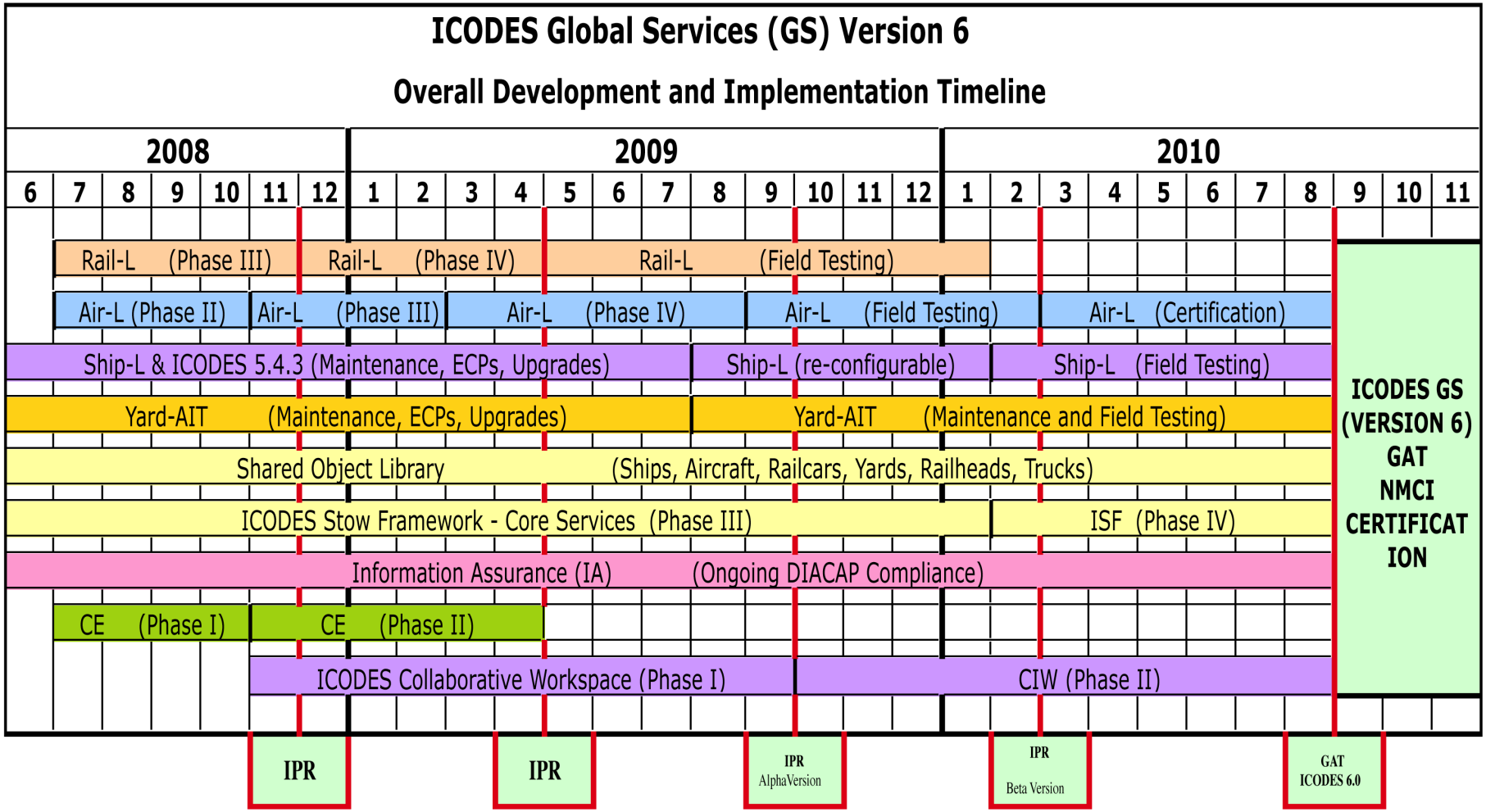
FY08 Plan (Continued)

- **Single Load Planning Capability initiative:**
  - JFCOM briefed Mar 07 Distribution Steering Group (DSG) meeting on need for single load planning capability for the Joint Deployment and Distribution Enterprise
  - DSG concurred and requested USTRANSCOM & JFCOM co-lead an abbreviated Capabilities-Based Assessment Team and recommend solution
- **Objective of SLPC effort:**
  - Single system with capability of one time data entry to create a load plan for air, ocean, rail, and truck
  - Develop collaborative workspace to allow for sharing of load data during load plan development and execution
- **What's been done:**
  - Completed and Staffed Business Case Analysis Sep 07
  - DSG approved ICODES as the platform for SLPC Oct 07
  - SDDC reprogrammed funds to support SLPC Feb 08
  - Investment Review Board approved the reprogramming Apr 08, contracting action underway.

ICODES

ICODES Global Services (GS) Version 6

Overall Development and Implementation Timeline


2008
2009
2010
6 7 8 9 10 11 12 1 2 3 4 5 6 7 8 9 10 11 12 1 2 3 4 5 6 7 8 9 10 11
Rail-L (Phase III)
Rail-L (Phase IV)
Rail-L (Field Testing)
Air-L (Phase II)
Air-L (Phase III)
Air-L (Phase IV)
Air-L (Field Testing)
Air-L (Certification)
Ship-L & ICODES 5.4.3 (Maintenance, ECPs, Upgrades)
Ship-L (re-configurable)
Ship-L (Field Testing)
Yard-AIT (Maintenance, ECPs, Upgrades)
Yard-AIT (Maintenance and Field Testing)
Shared Object Library (Ships, Aircraft, Railcars, Yards, Railheads, Trucks)
ICODES Stow Framework - Core Services (Phase III)
ISF (Phase IV)
Information Assurance (IA) (Ongoing DIACAP Compliance)
CE (Phase I)
CE (Phase II)
ICODES Collaborative Workspace (Phase I)
CIW (Phase II)
ICODES GS (VERSION 6) GAT NMCI CERTIFICATION
IPR
IPR
IPR AlphaVersion
IPR Beta Version
GAT ICODES 6.0

Unit Move - AALPS

Automated Air Load Planning System (AALPS)

- Allows military air load planners to quickly and efficiently estimate airlift requirements, plan force packages, and modify aircraft loads.
- Rapidly provides estimates of airlift requirements for a given list of equipment and passengers and takes into account the unique loading requirements for all delivery methods used on all U.S. military and Civil Reserve Air Fleet cargo aircraft.
- Allows users to create and save contingency force packages in advance of a mission.
- The system has the capability to print approved load plans as well as various load and movement reports. AALPS consists of six modules.

FY08 PLAN

- **Current Fielded Version: 4.3.4.1**
  - Ref: CMC Msg
- **New Development**
  - Version 4.4.004 (Lindhurst Build).
  - Removes DICOE Installer
  - Do not have to install TCAIMS II
  - SyBase still must be installed
- **Gov Acceptance Test with stakeholders:**
  - 7-28 Jul 2008 (Springfield VA)
  - 2 MARINE CORPS SMEs from OPFORs
  - NMCI Pre cert conducted during GAT
- **Fielding**
  - Decision to be made after GAT

POA&M

Date	Description	Action Team	Remarks	Task / Milestone
07-28 Jul 2008	Government Accceptance Test (Lindhurst Build)	PM TIS	Quantico Test Lab evaluates for NMCI compliance	Milestone
	Request OPFOR participation	TDIS Project Office		Task
Post GAT	Evaluate Test Results	MCSC/HQ MC		Milestone
Post GAT	Fielding Decision	MCSC/HQ MC		Milestone

Sustainment

CMOS
AMS –TAC
W2W

May 2007

GySgt Carl Thomas

Sustainment – LTM ITV

Last Tactical Mile – In Transit Visibility (LTM-ITV)

Last Tactical Mile – In Transit Visibility (LTM-ITV) Provides ITV of the last tactical mile for the in-theater distribution of sustainment cargo. W2W is a Bridging Technology system that provides a gap fill of current nodal ITV infrastructure. The system utilizes GPS transceivers and satellite communication equipment to provide near real-time movement /location asset visibility through a data feed to Battle Command Support Sustainment System (BCS3). The user kits are utilized to execute convoy deliveries to other camp locations through the AOR. It also provides AS1 and AS2 transactions (Supply/Transportation transactions) to the local Supply Management Unit personnel. USMC program.

New W2W Kit (GPS enabled Iridium)

FY08 PLAN

- Enhancements to the W2W kit
- Research tracking capabilities
- LTMITV server receive TIP files from AMS-TAC
- LTMITV server receive TIP files from MDSS II
- LTMITV server forward TIP files to N-ITV
- Enhance LTMITV ADHOC reports
- FSE’s in MROC locations
- Provide Pre-deployment training

POA &M FY08

- Finalizing in house CT&E testing
  - May 5-9 2008
- Conduct CT&E testing with QNA
- Finalize SSAA paperwork with findings from CT&E
- ATO & ATC
- Establish MOA with USTRANSCOM for IRRIS

POA &M FY08

- Finalizing in house CT&E testing
  - May 5-9 2008
- Conduct CT&E testing with QNA
- Finalize SSAA paperwork with findings from CT&E
- ATO & ATC
- Establish MOA with USTRANSCOM for IRRIS

Sustainment – AMS-TAC

Automated Manifest System – Tactical (AMS-TAC)

Transportation tool that utilizes Automatic Identification Technology (AIT) to facilitate In-transit Visibility / Total Asset Visibility (ITV/TAV) for the receipt and distribution of cargo. AMS-TAC can generate management reports, perform and compile detailed database searches, edit records, copy files to different formats and automatically backup, archive and restore data. It can be configured to operate as a stand-alone system or have multiple PC's interconnected at a site as a multi-user environment. This transportation tool provides near real-time capture of cargo movement data through the use of state of the art AIT hardware such as optical memory cards (OMC), 2D barcodes, RF tags, and Handheld Terminals (HHT's) which eliminates the need for multiple manual procedures and reduces errors in the shipment business process. Unofficial Lead Agent for Army, Navy and Marine Corps.

FY08 PLAN

- Field version 3.1.1.1
- W2W Web Interface
- Participate in the passive RFID pilot testing at II MLG
- Establish MOA with Navy and Army
- AMS-TAC forward TIP files to LTMITV server
- Provided Pre-deployment training
- Establish Charter with Army and Navy

POA&M FY08

- Field AMS-TAC 3.1.1.1 Legacy/ NMCI
- NETT AMS-TAC
  - MCAS Beaufort SC 5-9 May 08
  - MCAGCTC 29 Palms 12-16 May 08
  - MCAS Miramar 19-23 May 08
  - MCB Camp Pendleton / 1st MLG 2-6 June 08
  - MCB Hawaii 9-13 June 08
  - MCB Butler/ 3rd MLG 16-20 June 08
  - MCAS Iwakuni 23-27 June 08
  - MCB Camp Lejeune/ 2nd MLG 21-25 July 08
  - MCCDC Quantico 28 July – 1 Aug 08
- Submit 3.1.2 paperwork for IA review
  - July 31, 08
- GAT for 3.1.2
  - Aug 21-29, 08
- Finalize and submit SSAA paperwork
  - Sept 01, 2008

Sustainment - CMOS

Cargo Movement Operations System (CMOS)

CMOS prepares all documentation to move a shipment within the defense transportation system and commercial transportation channels. Documentation includes the Transportation Control and Movement Document, bar-coded military shipping label, Government Bill of Lading (GBL), Commercial Bill of Lading (CBL), and Air and Truck Manifest. CMOS utilizes state of the art Automatic Identification Technology (AIT) hardware to provide the electronic reporting of cargo movement which is a vital component of the logistics community's effort to provide In-transit Visibility and Total Asset Visibility (ITV/TAV). Additional functional areas greatly expand CMOS' capabilities to support multiple DoD organizations to effectively move cargo worldwide. Air Force led program. HQ Standard Systems Group (SSG) Managed.

FY08 PLAN

- Determine the use of AIT capability to expedite documentation process

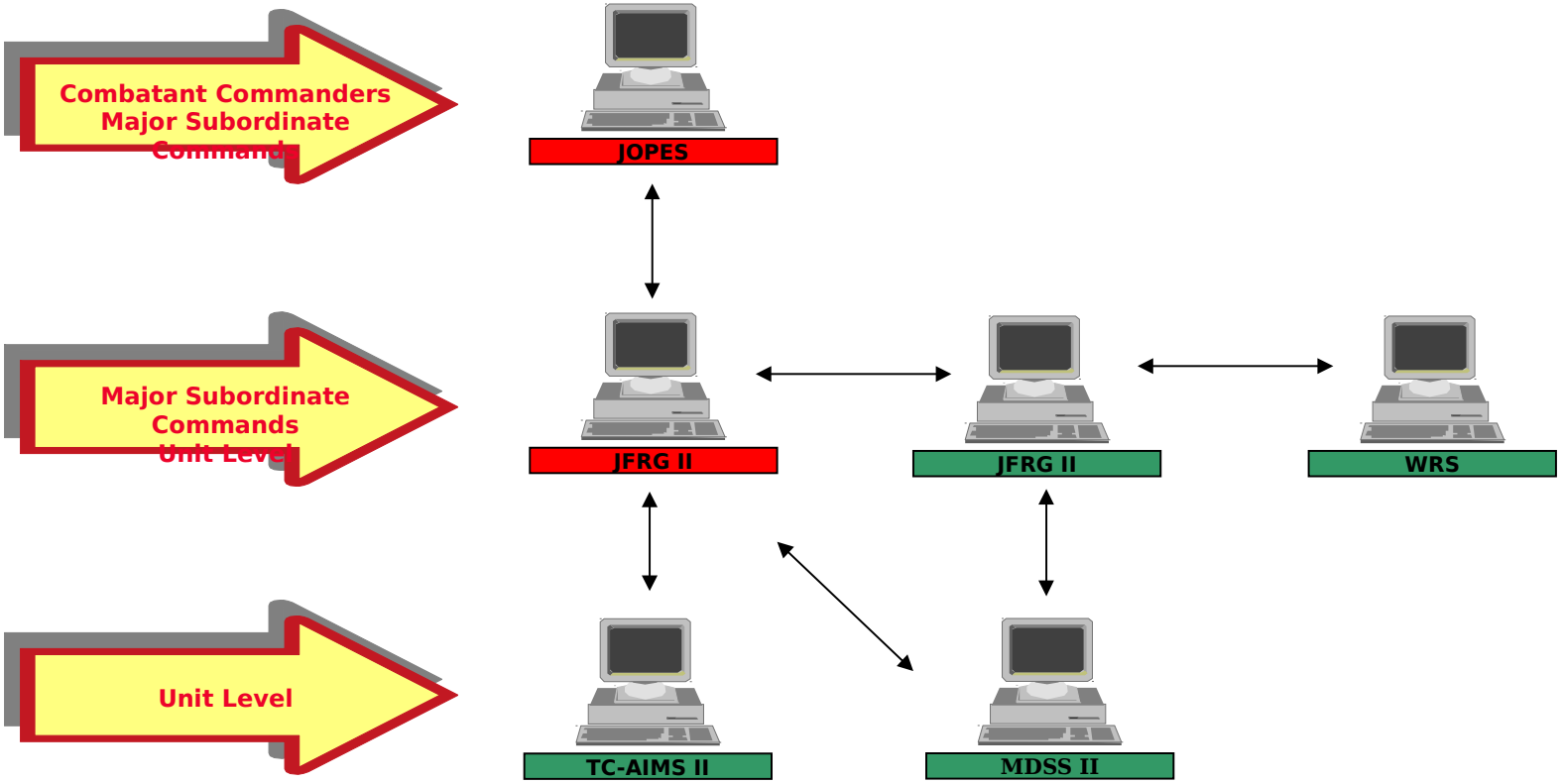
POA&M FY08

- Update IATO/ IATC for CMOS 7.2
  - From June 08 to December 08
- Participate in GAT with the Air Force
  - Reschedule until December
- Field CMOS web base 8.0
  - Fielding moved to the right from June 08 to December 08

Force Deployment Planning and Execution (FDP&E)

JFRG II

Architecture



Joint Force Requirements Generator II

Joint Force Requirements Generator (JFRG II) is a software application designed to provide the joint services with a state-of-the-art, integrated and deployable Automated Information System (AIS) that supports strategic force movements within the mandated 72-hour timeframe. JFRG II provides rapid force list creation and interfaces with JOPES, TC-AIMS II, MDSS II, and the WRS.

FY08 PLAN

- **Version 1.4.1.2p2**
  - **Continue to provide PDSS**

- **Version 1.5.**
  - **Conducted v1.5 GAT during 2nd QTR FY08 – 07-18 Jan 08**
  - **Conducted v1.5 MSEL Working Group – 15-16 Apr 08**
  - **Conducted v1.5 TRR – 06 May 08**
  - **Conduct v1.5 GAT Regression Test – 12-16 May 08**
  - **Commence v1.5 certification (IA / NRDDG)**
  - **Update v1.5 IA documentation**
  - **Field v1.5 to USA, USN, and USMC users**
  - **Participate in JFRG II UAG hosted by HQMC (JFRG II EA)**

POA&M

1. EVENT: JFRG II 1.5.0.0 MASTER SCENARIO EVENT LIST (MSEL) WORKING GROUP
   LOCATION: STANLEY ASSOCIATES, DUMFRIES, VA
   DATE: 15 APRIL 2008 – 16 APRIL 2008
   PARTICIPANTS: JFRG II PROJECT OFFICE, STANLEY ASSOCIATES, INVITED ATTENDEES (1 SME PER SVC)

2. EVENT: JFRG II 1.5.0.0. TEST READINESS REVIEW
   LOCATION: STANLEY ASSOCIATES, DUMFRIES, VA
   DATE: 6 MAY 2008
   PARTICIPANTS: JFRG II PROJECT OFFICE, STANLEY ASSOCIATES

3. EVENT: JFRG II 1.5.0.0 POST GAT REGRESSION TEST
   LOCATION: FORSCOM, BLDG 213, FORT GILLEM, GA
   DATE: 12-16 MAY 2008
   PARTICIPANTS: JFRG II PROJECT OFFICE, JFRG II FUNCTIONAL ADVOCATE, STANLEY ASSOCIATES, INVITED ATTENDEES

4. EVENT: JFRG II 1.5.0.0 NMCI/DISA CERTIFICATION PROCESS
   LOCATION: NOT APPLICABLE
   DATE: 27 MAY 2008 – 27 NOV 2008
   PARTICIPANTS: NONE

5. EVENT: JFRG II 1.5.0.0 NMCI DEPLOYMENT
   LOCATION: NOT APPLICABLE
   DATE: 28 NOV 2008 – 28 DEC 2008
   PARTICIPANTS: NONE

Background

- JFRG II originated from July ’99 decision of the Joint Requirements Oversight Committee (JROC) to be included as a near term information system initiative to facilitate achieving a sourced level 4 TPFDD within 72-hours of notification.

- Marine Corps Systems Command delegated project manager of JFRG II by Headquarters, United States Marine Corps.

- JFRG II provides the Joint services with a state-of-the-art, integrated, and deployable Automated Information System (AIS) that supports strategic force movements.

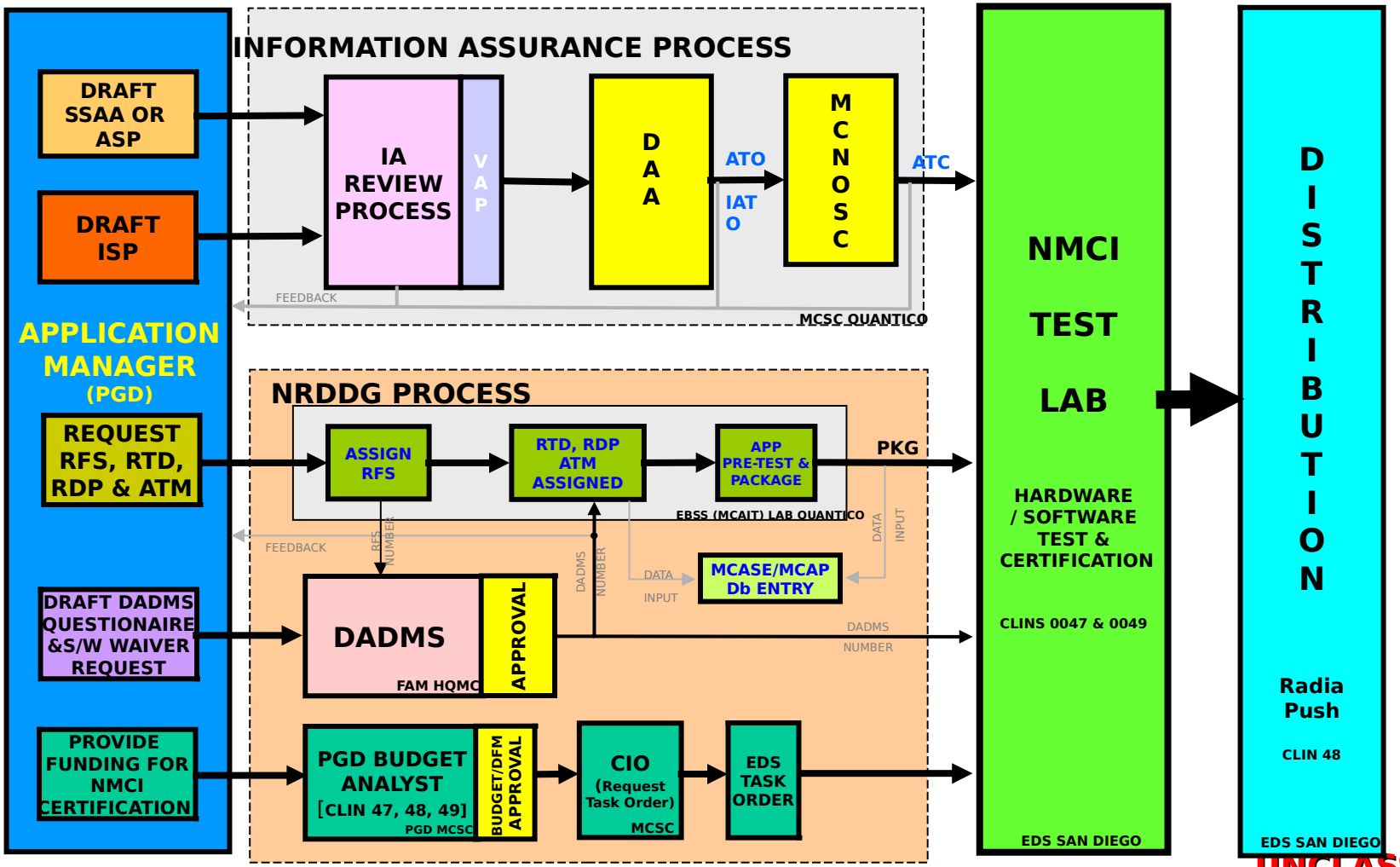
GCSS-MC

TDIS and AIT continue to attend numerous GCSS-MC meetings in order to understand impacts to applications and technologies for the future. Currently have a interface design document that allows for the passing of MDSS II data to GCSS_MC via AIT Location.

Information Assurance and Logistics

Information Assurance

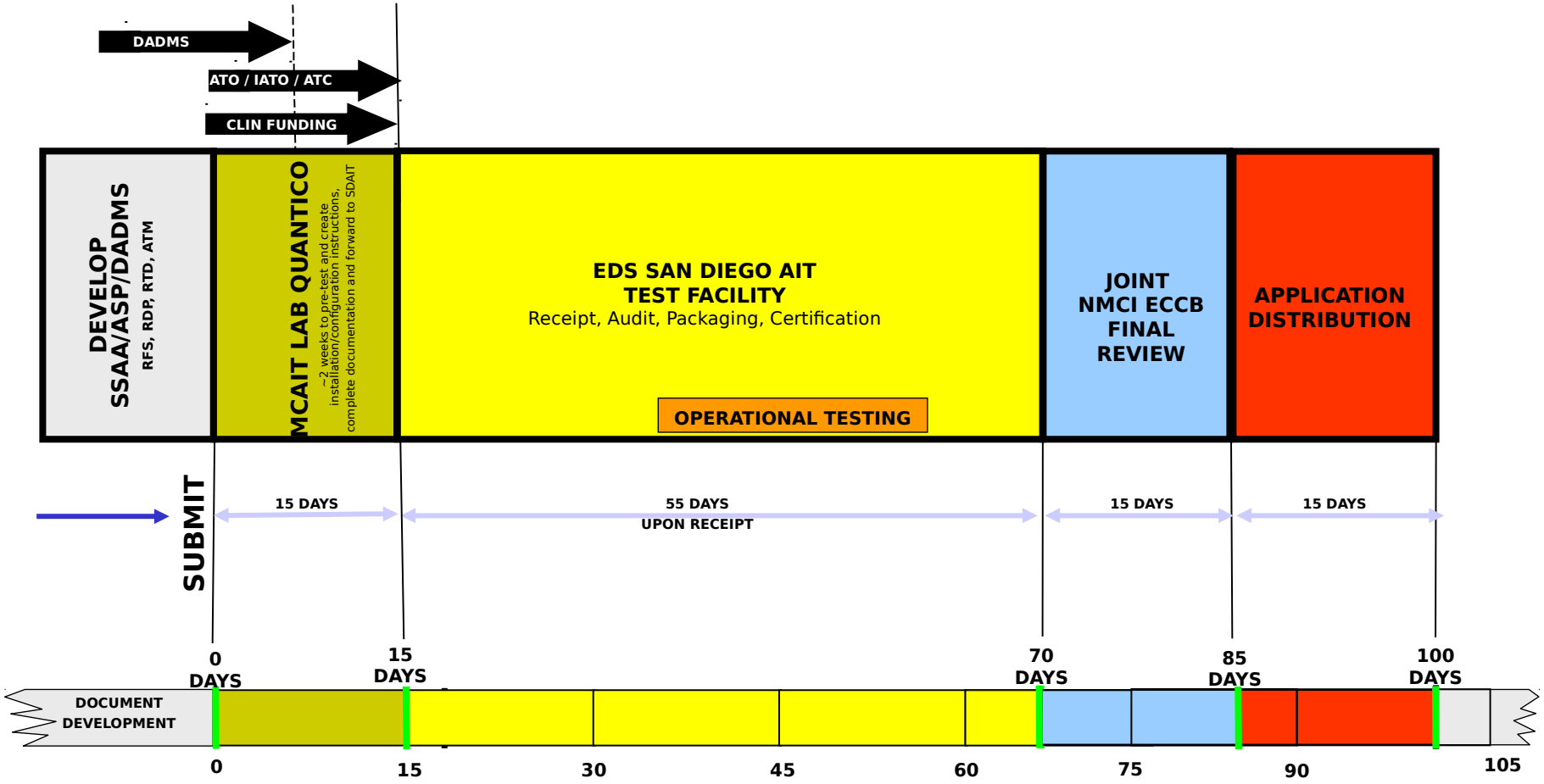
APPLICATION CERTIFICATION & APPROVAL



Information Assurance

NMCI Notional Application Release Deployment Process Timeline

(In a perfect world)



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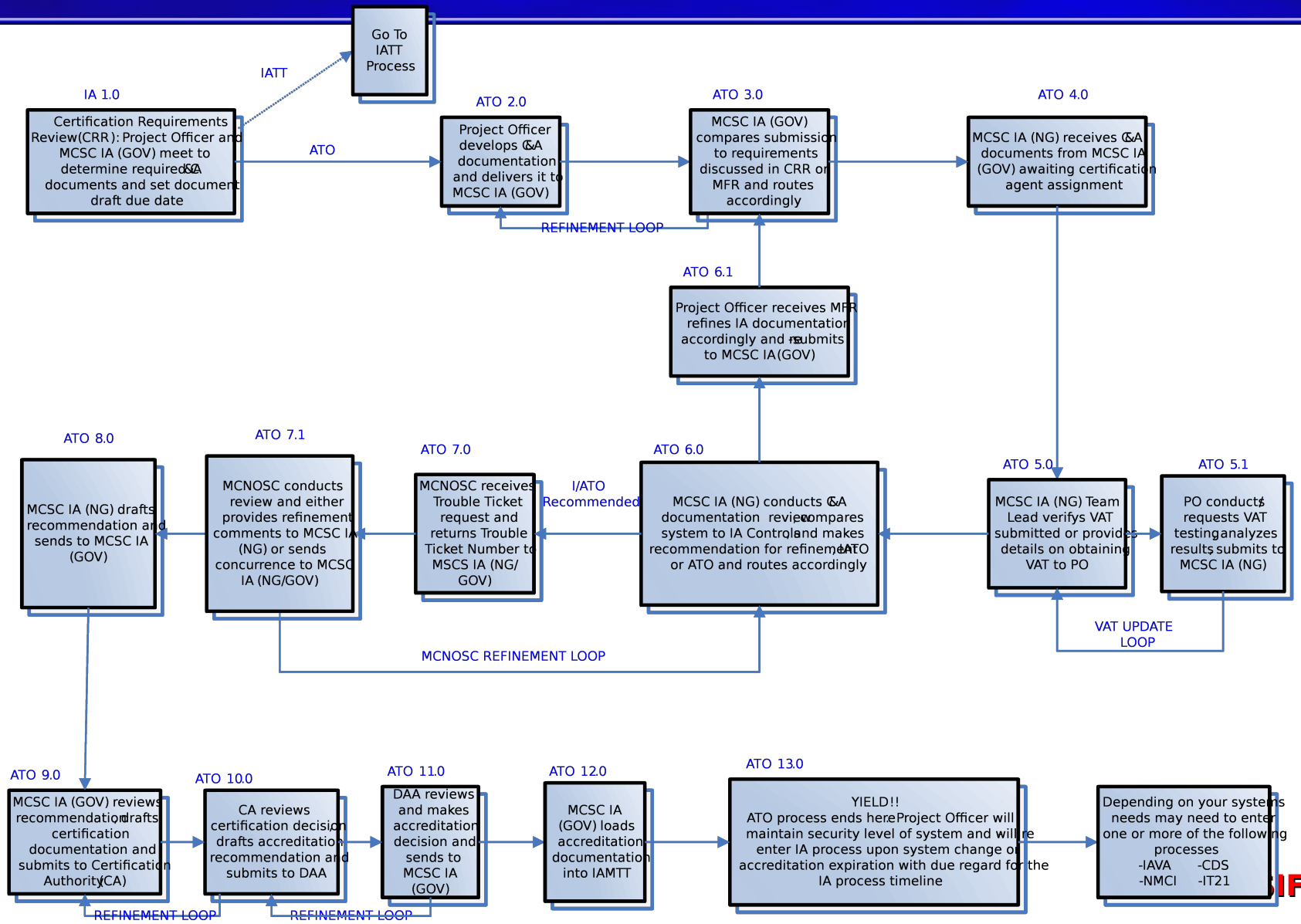
I/ATO Process


Go To IATT Process
IATT
IA 1.0
Certification Requirements Review(CRR): Project Officer and MCSC IA (GOV) meet to determine required C&A documents and set document draft due date
ATO
ATO 2.0
Project Officer develops C&A documentation and delivers it to MCSC IA (GOV)
REFINEMENT LOOP
ATO 3.0
MCSC IA (GOV) compares submission to requirements discussed in CRR or MFR and routes accordingly
ATO 4.0
MCSC IA (NG) receives C&A documents from MCSC IA (GOV) awaiting certification agent assignment
ATO 6.1
Project Officer receives MFR refines IA documentation accordingly and resubmits to MCSC IA(GOV)
ATO 8.0
MCSC IA (NG) drafts recommendation and sends to MCSC IA (GOV)
ATO 7.1
MCNOSC conducts review and either provides refinement comments to MCSC IA (NG) or sends concurrence to MCSC IA (NG/GOV)
ATO 7.0
MCNOSC receives Trouble Ticket request and returns Trouble Ticket Number to MSCS IA (NG/ GOV)
I/ATO Recommended
ATO 6.0
MCSC IA (NG) conducts C&A documentation review, compares system to IA Controls and makes recommendation for refinement, IATO or ATO and routes accordingly
ATO 5.0
MCSC IA (NG) Team Lead verifys VAT submitted or provides details on obtaining VAT to PO
ATO 5.1
PO conducts/requests VAT testing, analyzes results, submits to MCSC IA (NG)
VAT UPDATE LOOP
MCNOSC REFINEMENT LOOP
ATO 9.0
MCSC IA (GOV) reviews recommendation, drafts certification documentation and submits to Certification Authority (CA)
ATO 10.0
CA reviews certification decision, drafts accreditation recommendation and submits to DAA
ATO 11.0
DAA reviews and makes accreditation decision and sends to MCSC IA (GOV)
ATO 12.0
MCSC IA (GOV) loads accreditation documentation into IAMTT
ATO 13.0
YIELD!! ATO process ends here. Project Officer will maintain security level of system and will re-enter IA process upon system change or accreditation expiration with due regard for the IA process timeline
Depending on your system's needs may need to enter one or more of the following processes
-IAVA -CDS
-NMCI -IT21
REFINEMENT LOOP
REFINEMENT LOOP

Information Assurance

Information Assurance

- Inter-service Certifications
  - Each service component has their own DAA
  - Considerations given for existing ATO/ATC
    - Review and signature still required

Unit Move Capability Packages

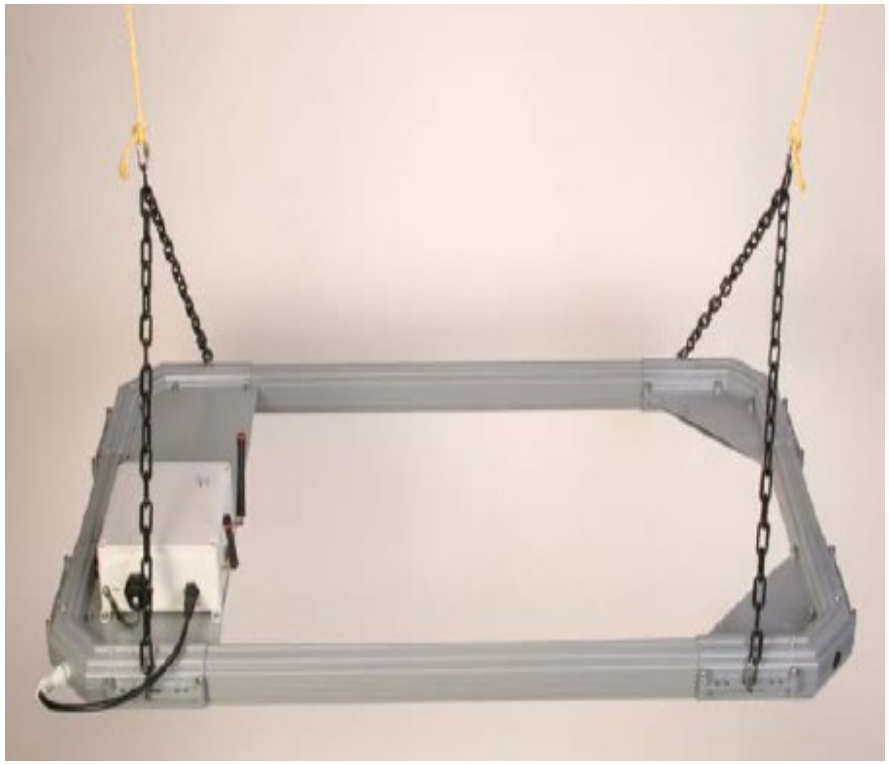
Unit Move Capability Packages

		WHEEL SCALES	SPI	650 INT	LOGMAR	HANDHELDS	CRADLES	Mobile reares	24” P	24" P Cases	13" p
Package 1	**BN/SQDN /CLB**		2	2	1	0	0	0	0	0	0
Package 2	**REG/MAG / CLR//MHG**		2	2	1	10	10	5	0	0	0
Package 3	**DIV/MAW / MLG**		2	2	3	10	10	5	2	2	0
Package 4	**MEF**		5	2	3	10	10	5	3	3	0
Package 5	**MEU**		3	2	2	20	20	10	3	3	3
Package 6	**MARFORRES**		2	2	5	20	20	10	0	0	0
Package 7	**MARFORs / ESG**		2	0	0	0	0	0	0	0	0
Package 8	**LPD/LSD**		2	0	0	0	0	0	0	0	1
Package 9	**LHA/LHD**		3	0	0	0	0	0	0	0	1
Package 10	**CPR**	8	2	0	0	10	10	5	1	1	0

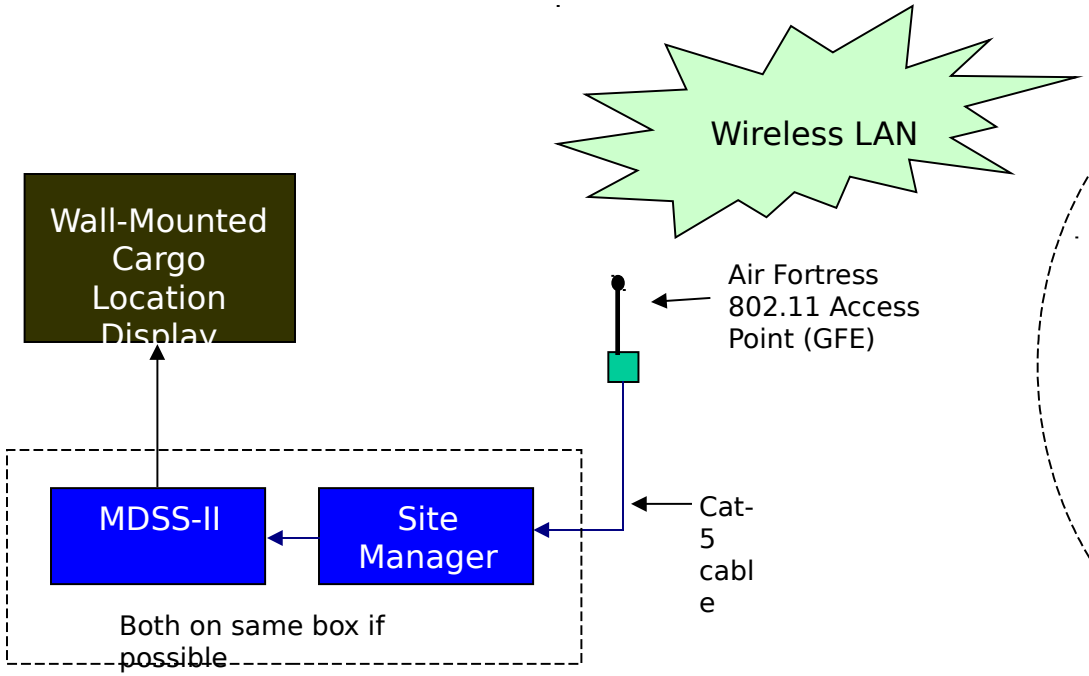
Automated tracking during Arrival and Assembly Operations

MARCORSYSCOM, TDIS Section will automate the capture of DATA with MDSS II, SAVI Sign Post and a secure wireless environment in order to reduce man hours required during Arrival and Assembly Operations for the tracking of supplies and equipment

Savi Signpost SP-652-211

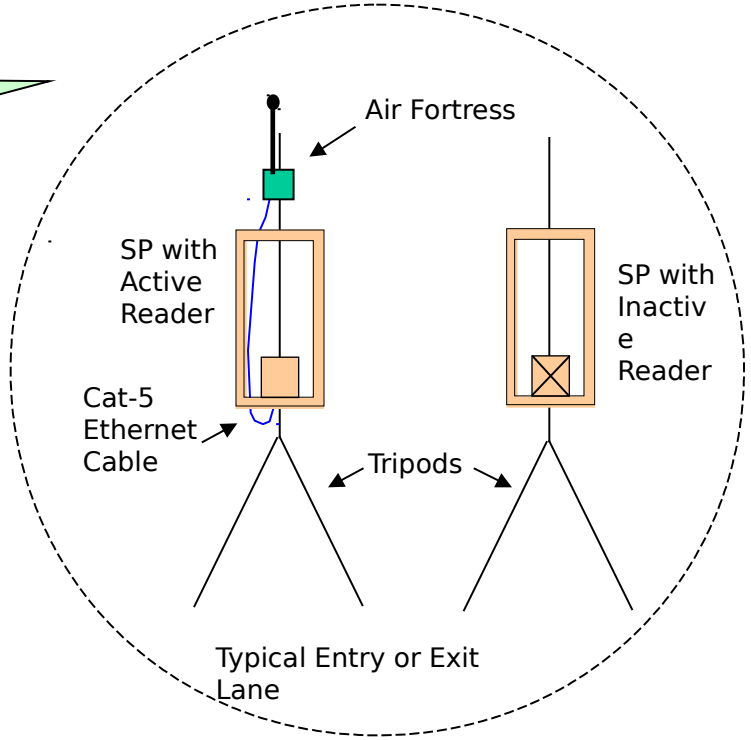


- Reads Active Radio Frequency Tags affixed to supplies and equipment
- Reader Combo
- Adjustable, well-defined range of up to 12 feet (3.66 m)
- Fully configurable operation, including data transfer
- Globally approved frequency
- Rugged, weather proof, for outdoor or indoor use

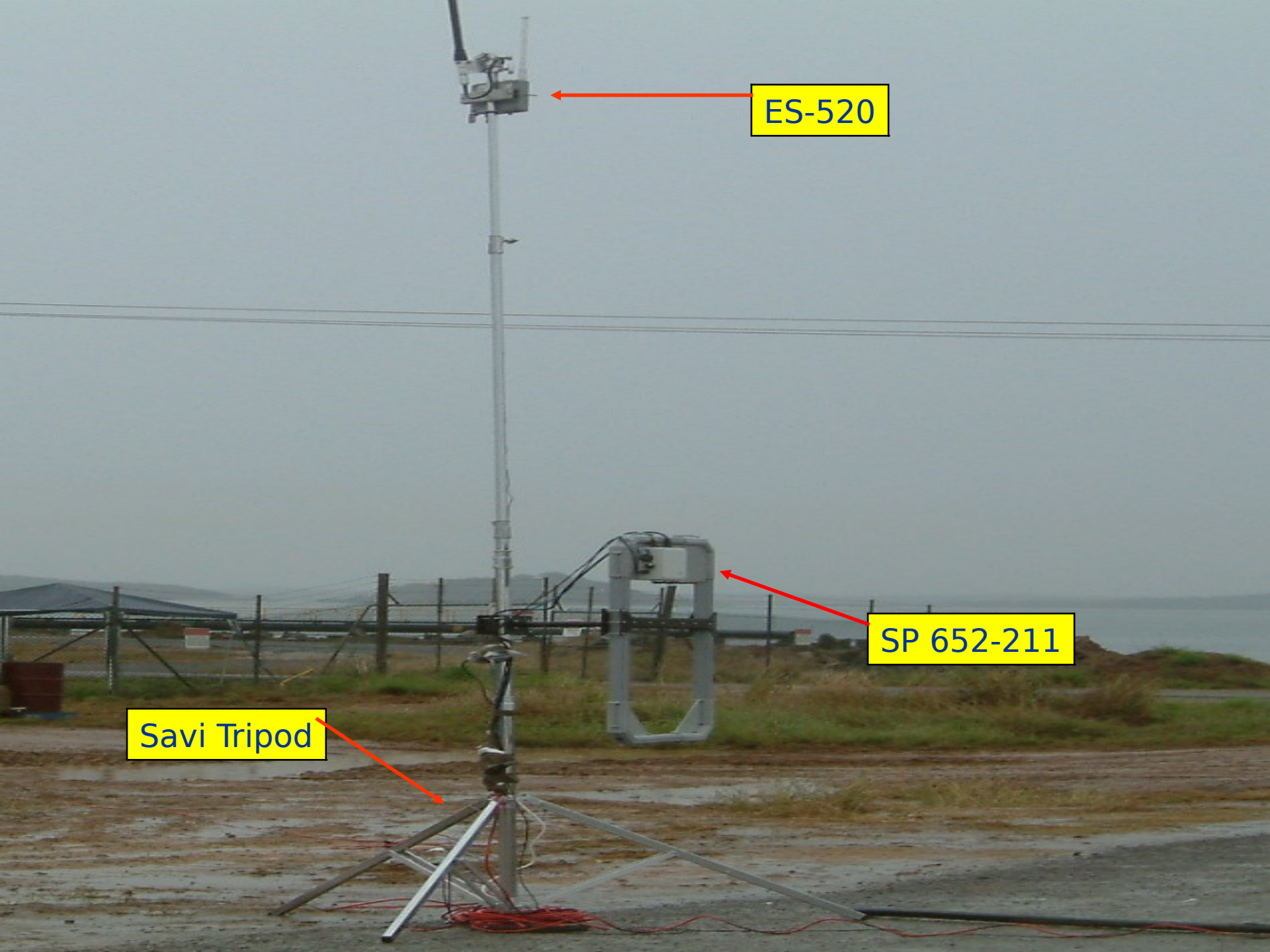


Site Manager receives tag reads from all Signpost/readers. SM exports tag IDs, with location code (Reader ID), and timestamp to MDSS-II.

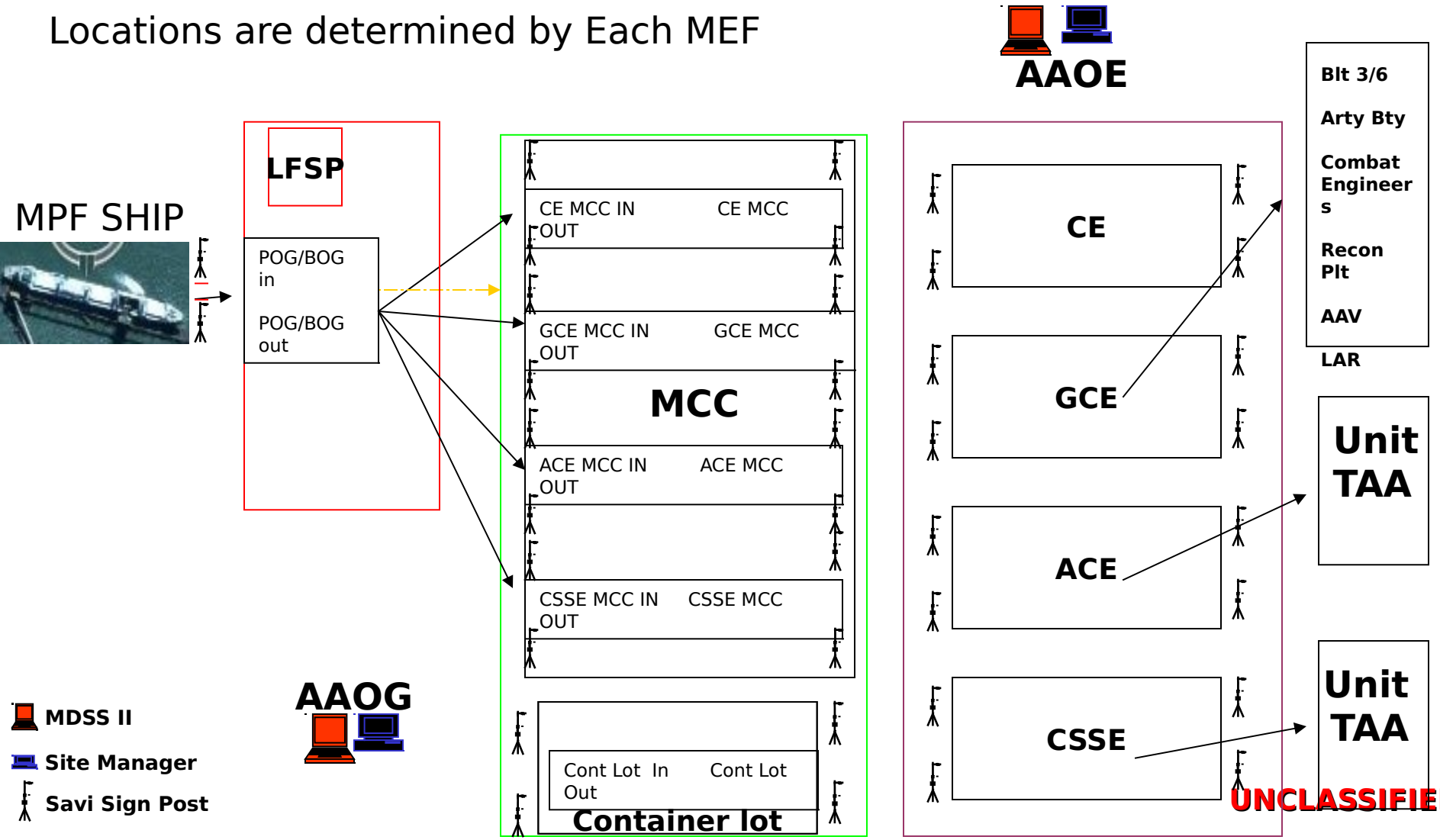
MDSS-II updates MDSS-II Cargo Location Table and displays current locations



Each entry/exit lane will have 2 SPRs mounted on tripods - both will be set to same ID#, but only one reader per pair will be active.


ES-520
SP 652-211
Savi Tripod

Locations are determined by Each MEF



Current status

- Capability was demonstrated during TS-07 with I MEF
- Being used during CG 08
- Planned to be used during NF
  - Ownership transaction to ATLASS/ GCSS-MC

Future

- HQMC/Operating Forces to decide.

Deployable Automated Cargo Measurement System (DACMS)

Provides an automated system to electronically weigh and measure cargo for deployments

Automatically calculates the Center of Balance (CB) and Cube Data (Length, Width, Height, Weight, Axle Weight/Distance)

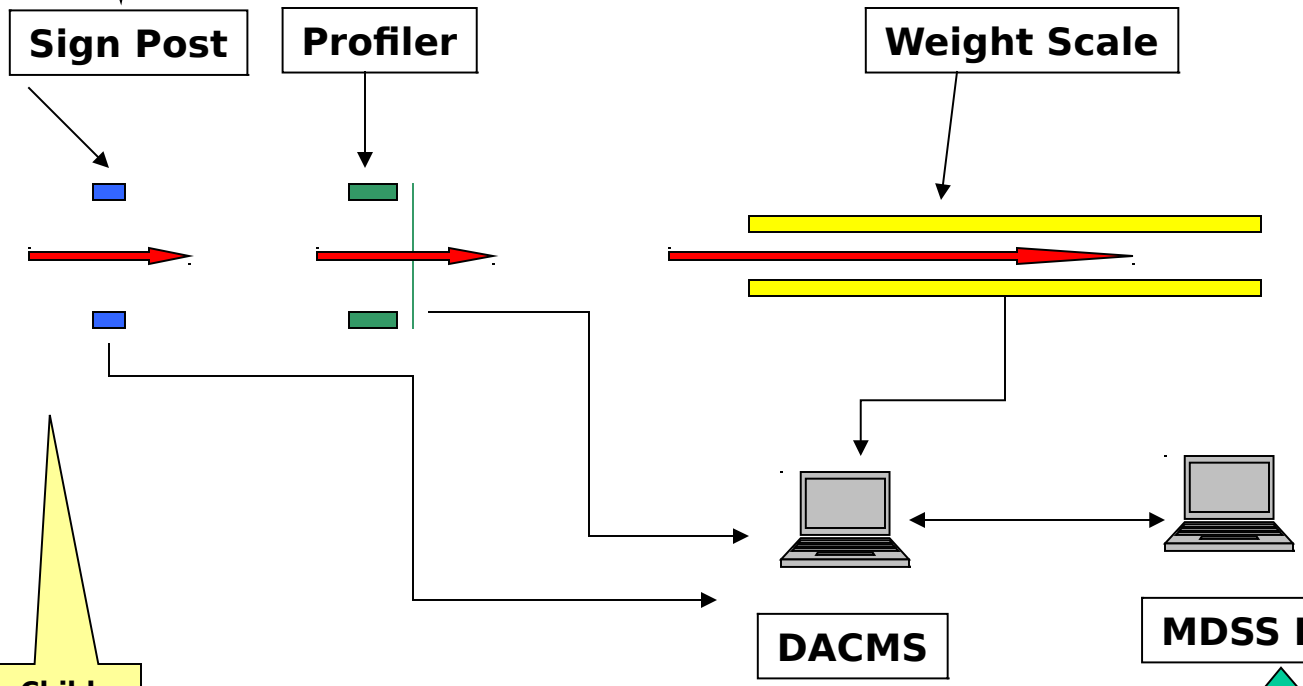
Will send and receive data to/from MDSS II

UNCLASSIFIED

The sign post will wake up the tag and identify the asset that is going through DACMS in MDSS II

The Profile will gather dimensional data and thru DACMS, it will populate the dimensional data for that PEI in MDSS II

The Wt. scale will update MDSS II data via, DACMS. It will also gather CB, and AXLE WT for each Axle, plus provide GVW.



If the Child has a RFID tag, That Childs Tag needs to be disregarded, and only the RFID Tags on the Parents need to be

With using the SAVI Sign Posts and DACMS, this process will ensure that accurate dimensional data is recorded in MDSS II. Further more, this can be a one-stop-shop both weighing and writing RFID TAGS

ED

Slide

DACMS

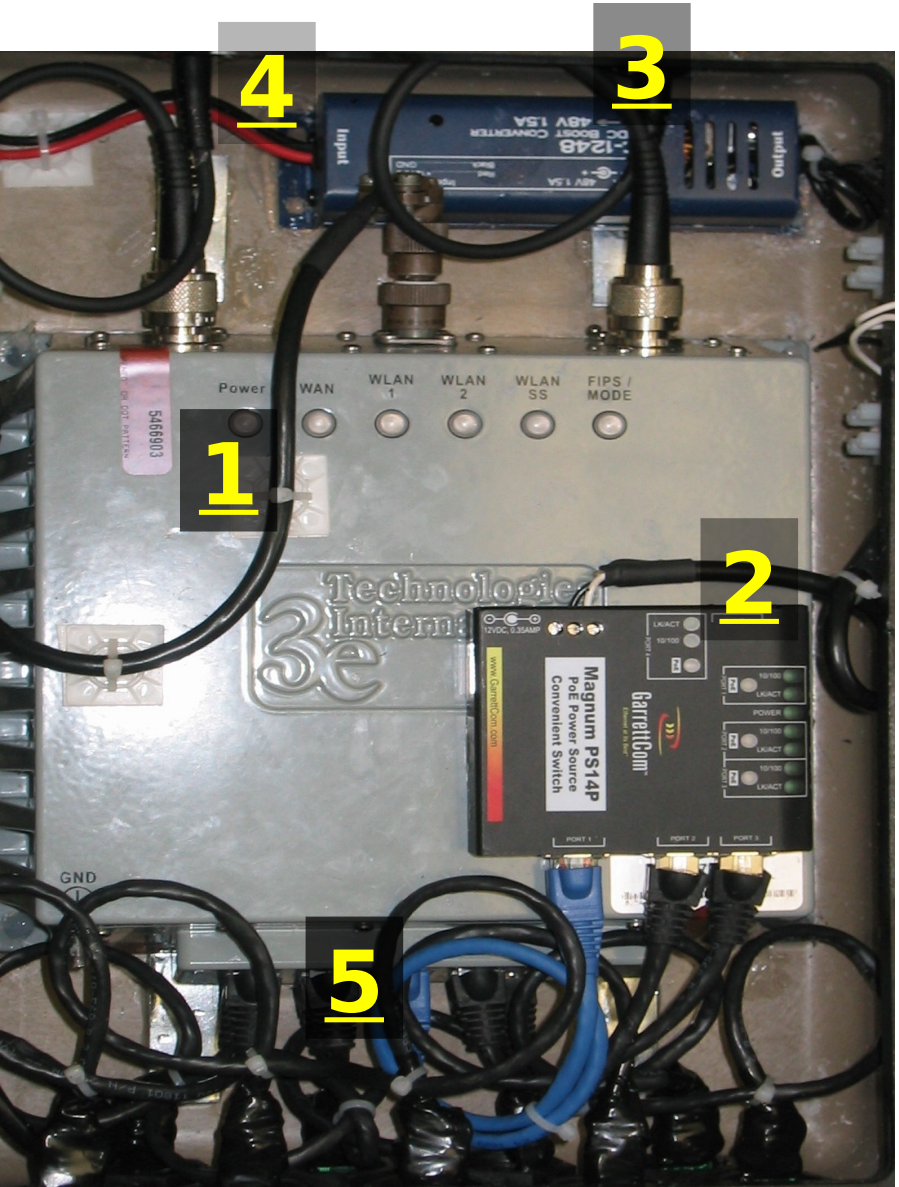
Profile System with
Adjustable Tripods
Portable Weight Scales

Mobile Wireless Embarkation Network (MWEN)

- Provide a reliable and rapidly deployed self contained wireless canopy
- Interoperable with existing data communications capability
- Provide extended equipment runtime in the absence of available power

UNCLASSIFIED

MWEN Unit



SYSTEM COMPONENTS

- 3eti 527a3MP Access Point
- GarrettCom Magnum PS14P POE switch.
- Powerstream DC1248 DC power supply
- N Female to Male Antenna Bulkhead Cable
- IEC IP67 Harsh Environment Cat-5 Bulkhead connectors

- 3/8 inch threads offer numerous mounting options
  - Magnetic
  - Ratchet Strap
  - Pole Clamp

Magnetic

MWEN Connectivity

- Seven Cat-5 ports for client connections
  - Two ports capable of providing (POE) power over Ethernet for devices.
- Bridge to other wireless access points
- Wireless connectivity for clients and devices
- MWEN capable of being wired to network acting as gateway

MWEN Connectivity Cont.

- Exterior Antenna ports allows remote antenna location for better signal
- POE ports allow powering of clients up to 300 feet away
- Directional Bridge antenna allows for long distance connections 10+ miles *

* Line of sight

9 Hours run time-no external power source

FEATURES AND BENEFITS

- Light weight, long duration power solution
- 70% weight savings for a 72 hour mission compared to batteries
- Hot Swappable fuel cartridges for an uninterruptible power supply
- Operates in any physical orientation
- Immediate power available
- Operations in desert, arctic and jungle environments
- Night Vision Compatible

20/40 day runtime coming soon

MWEN Flexibility

- Capable of using various 12volt power sources
  - Solar input
  - 120v input 12 volt transformer
  - Fuel Cell
  - Vehicles (currently 24vdc tactical vehicle power is not supported)

Automatic identification Technology (AIT)

RFID Hardware Components

654 Tag with Bracket

675-I Tag

(Sensor tag)

Intermec 751G/A

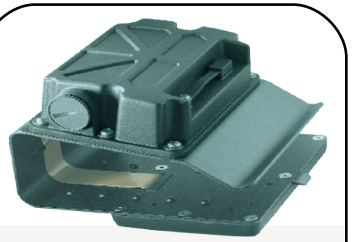
with 650P

654 Cable

Portable

Deployment Kit

650 Reader



656-I Tag

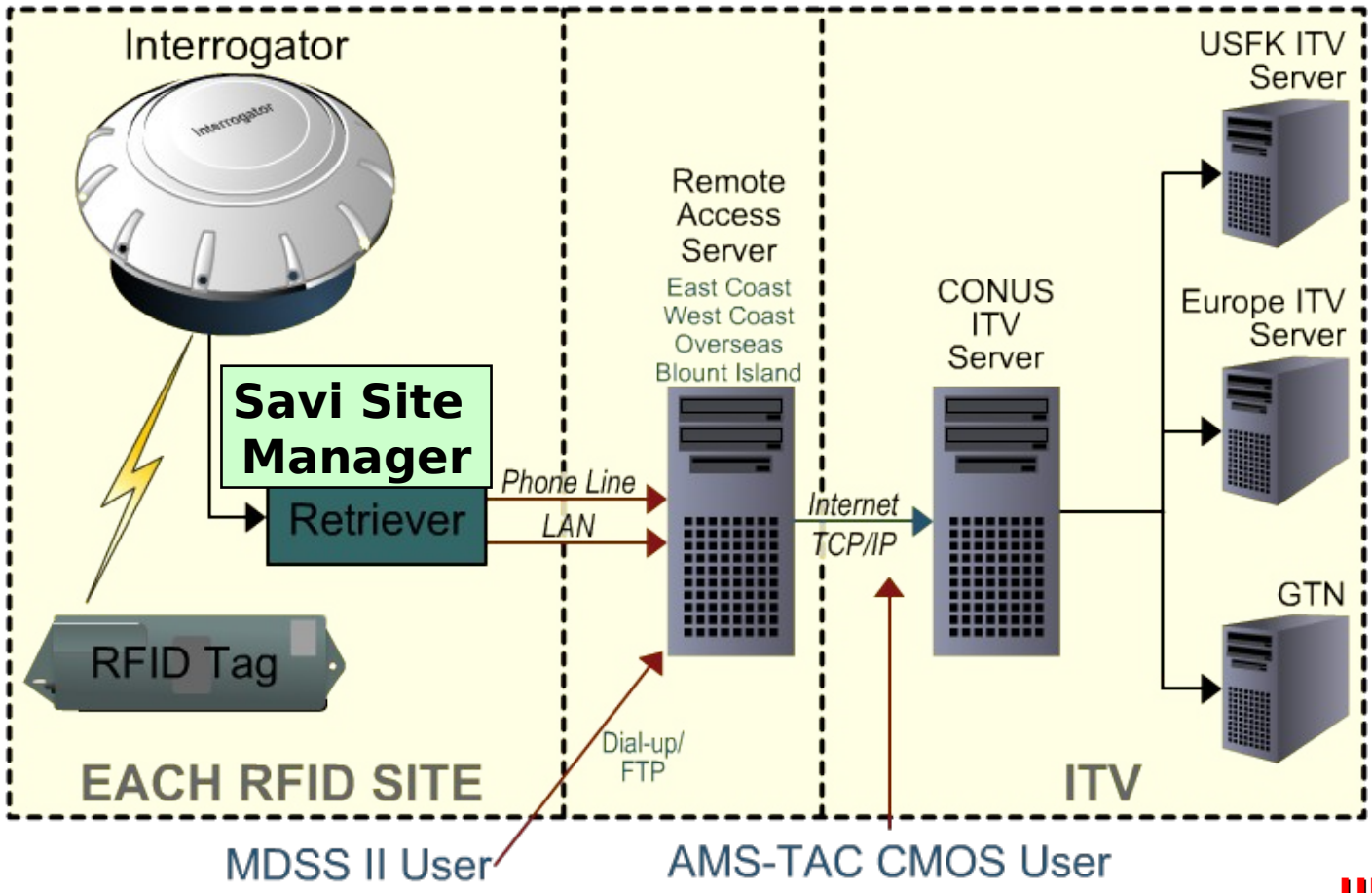
(ISO Container Tag)

SMR 8100/8146

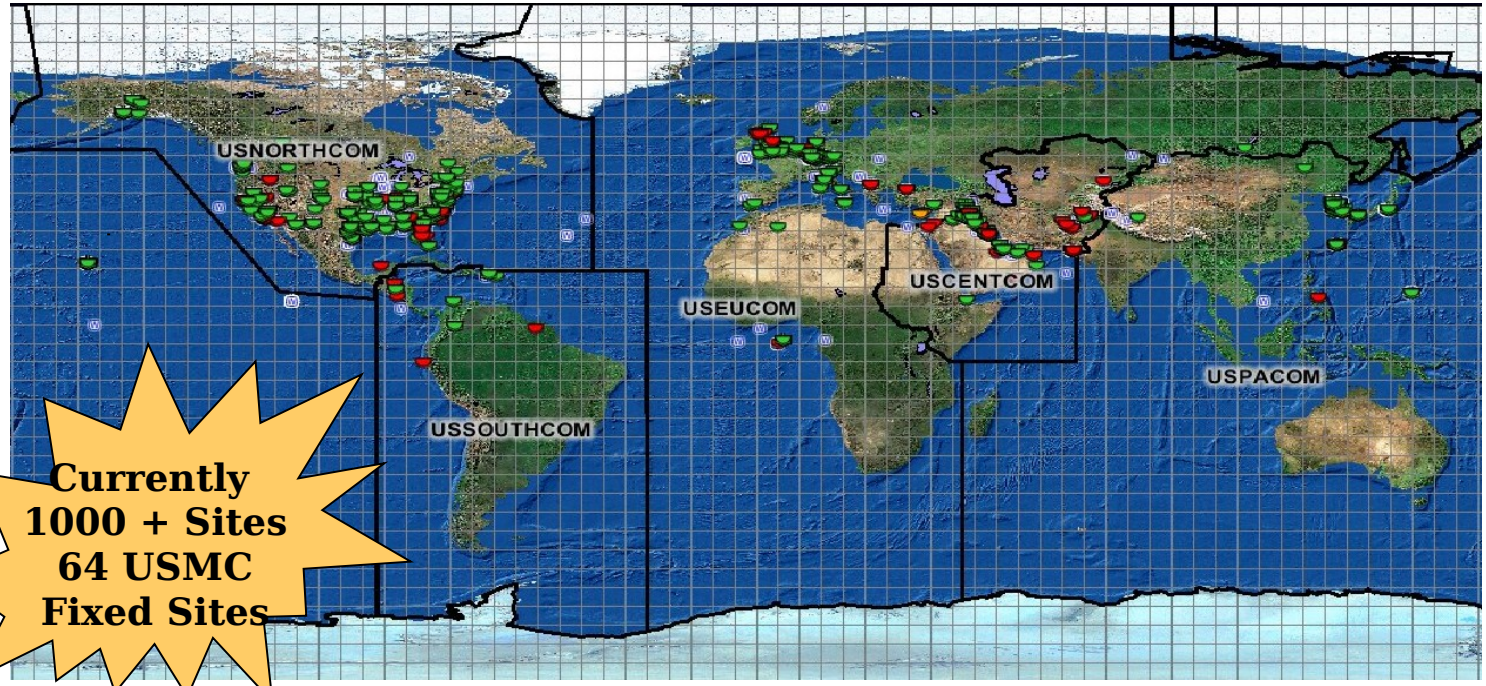
Docking Station with 654

Adapter Sleeve

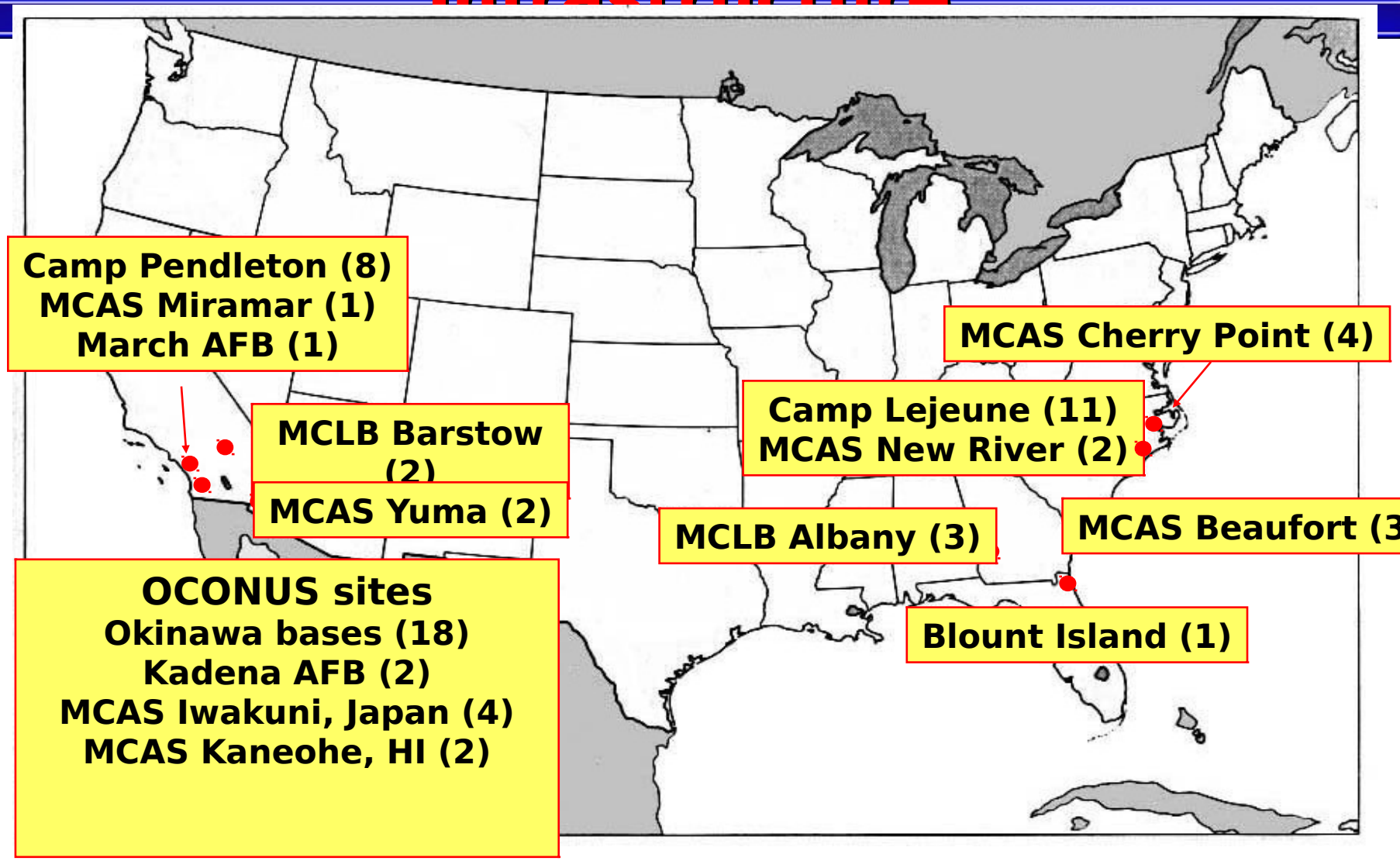
RFID Infrastructure



Active RFID Infrastructure



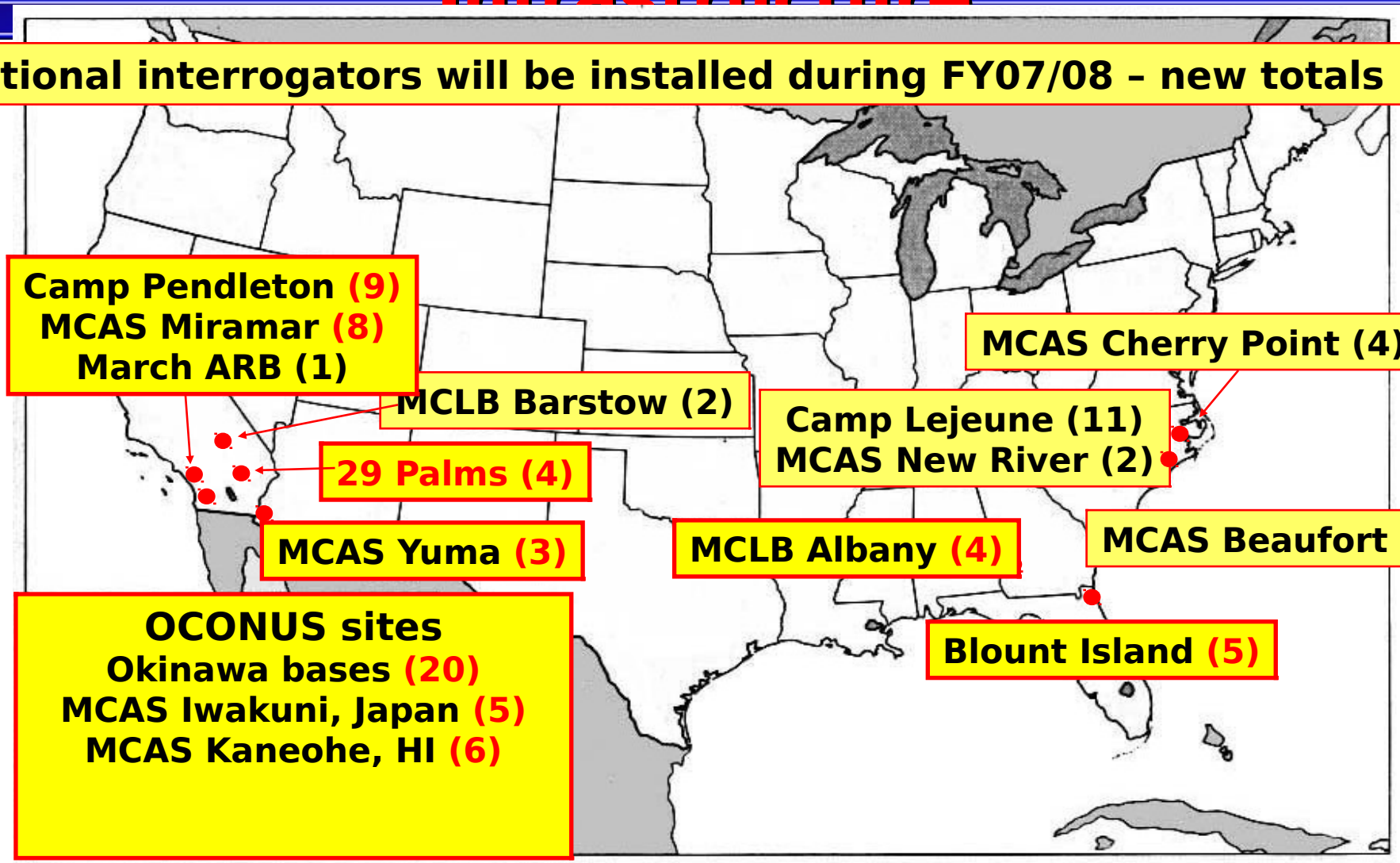
USMC Current RFID Infrastructure



- Number in parentheses denotes number of interrogators

USMC Planned RFID Infrastructure

Additional interrogators will be installed during FY07/08 – new totals in



- Number in parentheses denotes number of interrogators

USMC Mobile RFID Kit Laydown

	PDKS	EEDSK	TOTAL
I MEF	38	7	45
II MEF	20	5	25
III MEF	20	2	22
MARFORRES (Reserves)	6	0	6
BIC	21	0	21
MCCSSS	3	0	3
AIT LAB	1	0	1

AIT Handheld Reader Devices

- AIT Project Office has the role of procuring AIT handheld devices
  - Manage initial procurement and refresh of devices for USMC applications
  - Active with PM J-AIT to ensure that USMC requirements are met on current AIT contracts
- Transition to next generation of AIT devices
  - Current scanner solution will need replacement in coming years
  - Interdisciplinary working group at MARCORSYSCOM will collaborate to determine optimal course of action

Emerging Technologies

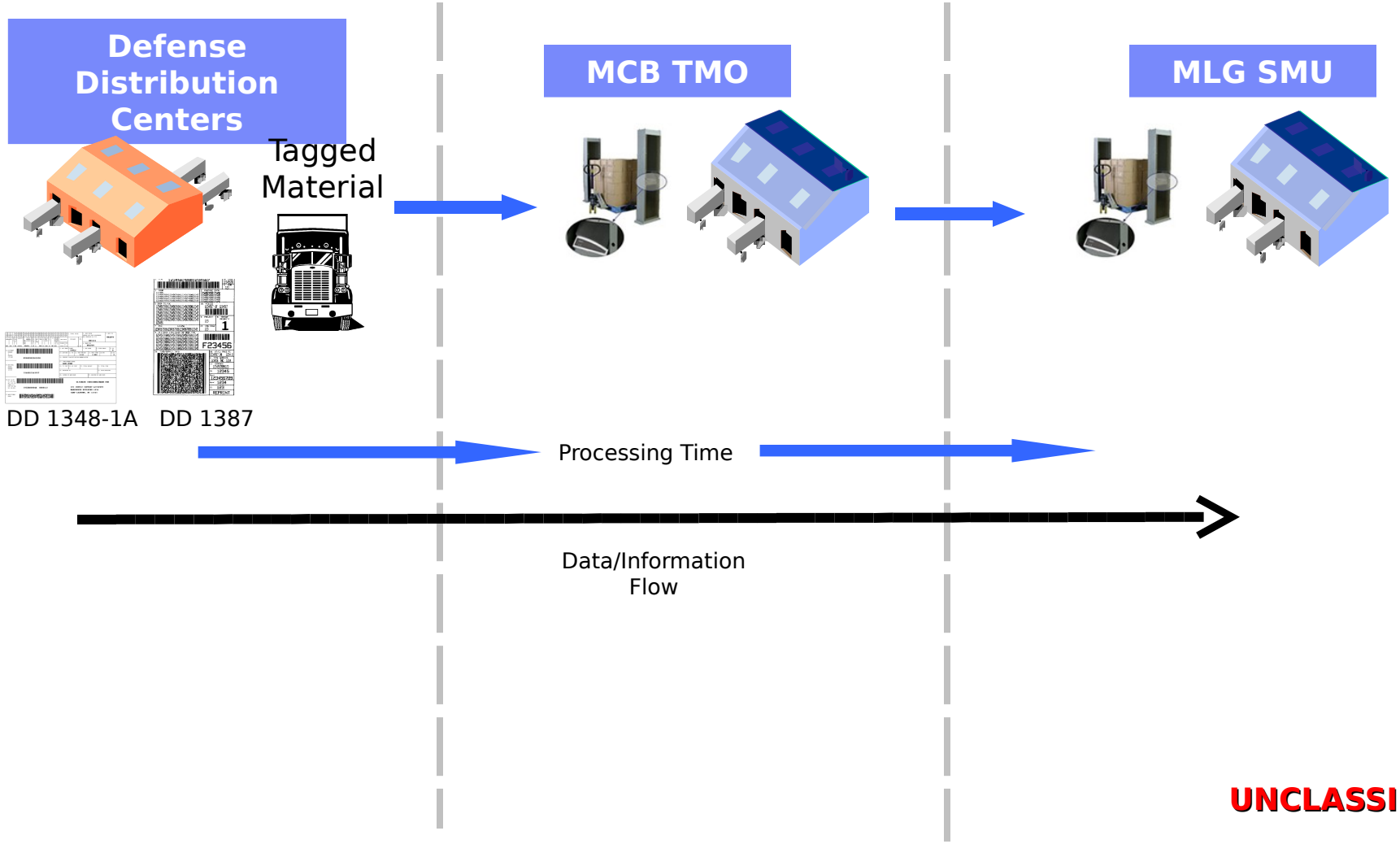
- AIT Project Office lab facility
  - AIT lab is maintained near Quantico
  - Venue for evaluating current and emerging AIT devices and applications
  - Also well equipped for technical training classes

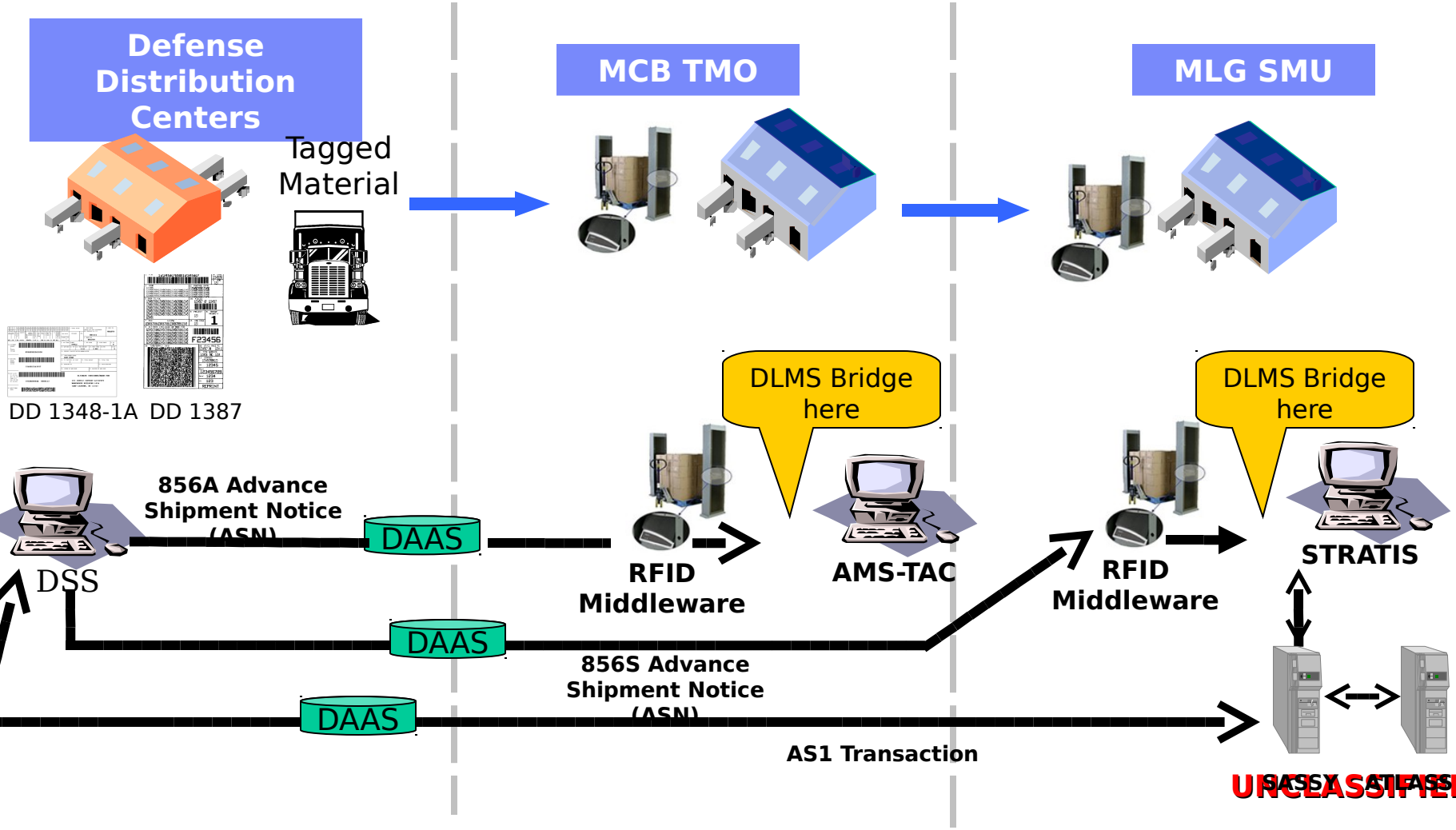
License Plate Tag

- License Plate Tag
  - Tag does not contain Content Level data.
  - .TIP file is still created and data sent to the National ITV Server.
  - Used in cases where there is no requirement to execute a detailed read on the Tag for visibility of what is in the container or needed to populate MDSS II with data.
  - OSD/TRANSCOM are interested in BICMDs RFID tagging process of not writing data to the tag.

Passive RFID

- Passive RFID implementation
  - CONOPS for Passive RFID under development
    - Passive RFID will be applied to receiving process at our three MEF's Transportation Movement Office and Supply Management Unit
  - Automatic correlation of Advance Shipping Notice from DLA with the pallet as it passes through the warehouse bay doors
  - Potential to eventually have enterprise visibility of material in motion, save labor hours and streamline receiving process


Defense Distribution Centers
Tagged Material
MCB TMO
MLG SMU
DD 1348-1A
DD 1387
Processing Time
Data/Information Flow


Defense Distribution Centers
Tagged Material
MCB TMO
MLG SMU
DD 1348-1A
DD 1387
DLMS Bridge here
DLMS Bridge here
856A Advance Shipment Notice (ASN)
DAAS
DSS
RFID Middleware
AMS-TAC
RFID Middleware
STRATIS
DAAS
856S Advance Shipment Notice (ASN)
DAAS
AS1 Transaction